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Vocational Ability Oriented Modularized Curriculum for Advanced Vocational School

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Abstract

This paper elaborates how to construct a vocational ability oriented modularized curriculum system for advanced vocational school, identifies content and target of each module, and discusses specific steps of construction.

Keywords: vocational education; modularized education pattern; modularized curriculum; modularized credit system;

1. Introduction

Growing economy and social development demands vocational education, advanced vocational education plays significant role in sophisticated education system. Developing vocational education is highlighted in paper “National Long-term Reform and Develop Plan”, it is an opportunity of vocational education. The task of vocational education is providing teaching resource focus on passing advanced practical vocational skill and knowledge, with these advanced skill and knowledge graduated students can well fit the practical demand of market. Therefore, understanding what market really wants before building advanced vocational education is necessary. Based on this understanding, applying practical vocational teaching pattern to make students become to employee with related knowledge, skill. This teaching pattern must be practice-oriented instead of

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theory-oriented, on this point the existed curriculum structure must be simplified. The vocational-oriented teaching pattern should only covers related theory and emphasizes training students' practical skill.

2. Construction of Modularized Curriculum

Curriculum modularization should bases on analysis of teaching and curriculum organization, in the process of modularization designer should consider the reality of curriculum delivery and organizing, arrange suitable hours to each curriculum, curriculum share similar skill and knowledge target should be put into one module, various modules make up module repository. Different module with its own purpose, one module can be designed for specific major or universal purpose, e.g. public curriculum module or basic professional curriculum module. Each module with specific credit point, education organization can choose and combine specific modules according to specific train program, and set a passing line for identifying passed student.

Modularized curriculum with following features:

- Each module is isolated, students can gain one professional skill after finishing one module;
- The content of curriculum must fit the demand of student's future job, it must be practical;
- All the teaching material must be practical instead of pure theoretical;
- The content of each module is not need to be much, only those necessary content should be covered;
- Each module has its own purpose and demand, and modules can be combined;
- Module should be small enough for fast update in the future.

Vocational analysis is a critical part of curriculum module design, its purpose is identifying vocational responsibility, ordinary task and skill requirement, vocational skill requirement analysis can be undertaken by consult committee of profession which is consisted by specialist, manager and expert in industry. We can modularize whole curriculum according to this skill requirement analysis, and label these curriculum as different levels: basic module and advanced module. After finishing each module, student can gain one specific professional skill. Beside this, the existed credit system needs to be modified too, the credit granting should based on module instead of curriculum, it offers more flexible curriculum combination to students, which means it should be more fit to each unique student. Generally, five different modules are needed for a complete module system: universal basic module, universal professional module, advanced professional module, integrated practical module and extended module.

2.1. Universal Basic Module

It covers some common curriculum, e.g. mathematics, P.E., English, etc. The purpose of universal basic module is teaching some basic common knowledge for advanced curriculum.

2.2. Universal Professional Module

It covers universal basic curriculum in one specific professional field. It is a platform module, the purpose of this module is teaching students some common professional skill and knowledge. This skill and knowledge can help students to get used to their new position in the same field in the future. For instance, to software major, universal professional module covers "Introduction of Computer", "Programming Logic", "Basic Network Technology", "Introduction of Database System", etc.

2.3. Advanced Professional Module

Based on analysis of skill requirement of career, several different advanced professional modules should be set. These modules aim on passing advanced professional skill and knowledge that might be used in future by students. Each module includes some individual practical skill trainings; students need to pass some certificate test for getting credit of one module. Accomplishing this module can help student to achieve professional requirement of their future job.

2.4. Integrated Practical Module

This module includes internship, graduated work and practice, this module aims on leveling students' integrated practical skill up.

2.5. Extended Module

This module aims on training students' extended professional skills, such as the skills of learn, communicate skill, etc. The curriculum of this module can be centralized or distributed. Some skills need to be taught in centralized module, e.g. data processing; other skills can be covered during different curriculum, e.g. cooperation. Our suggestion is giving extended module gradually: focus on "skills of learn" in first year with teaching "self learning", "data process" and "digital applying"; focus on "social skill" with teaching "communicate skill", "cooperation" and "problem solving".

3. Implementation of Modularized Curriculum

The foundation of modularized curriculum is those basic curriculum as know as platform curriculum, specific advanced curriculum base on those platform curriculum. Students can choose those specific advanced curriculum that they like. This organization can help students learn both some common skill and specific advanced skill. Basic curriculum module should be designed as practical and extendable module; specific advanced curriculum module should be designed as career requirement matched module; integrated practical module should aim on getting skill certification.

Teachers should help students to fit the gap between textbook and practical skill, for this, teachers must figure out the relationship between different curriculum, the relationship between curriculum and professional skill, the relationship between curriculum and basic professional quality. Based on above understanding, teachers should focus on training students' capability of solving problem instead of just passing theory.

There are three ways to give integrated practical training: lab work in theory curriculum; couple weeks short term practical training, this training should just follow related theory curriculum when students' memory is still fresh; one year internship work, cooperate with related company or organization to set internship plan for students.

Modernize the management of laboratory, allow students to access these resource freely. Encourage students to build team, club or association that related to their major, teachers should offer help for building these. Besides, major related optional curriculum should be encouraged for expending students' view.

Certification is important for job seekers, advanced professional curriculum module should aim on these certification, try to bind curriculum with professional certifications.

4. Some Advice for Implementing Modularized Curriculum

4.1. Enrich curriculum module repository

The curriculum module repository should be enriched in two aspects: coverage and professional level. To coverage, all vocational college's curriculum should be modularized; therefore the curriculum can covers all area. In real world, we always have some curriculum are taught in different related majors, however in different majors they have different teaching hours, details and credit. Therefore we need to modularize these kinds of curriculum, and then we can combine these modules to meet particular demand in future. By these plentiful curriculum modules, we can customize and upgrade existed majors. Meanwhile, optional curriculum modules should be enriched for helping students to find their interest and merit.

4.2. Curriculum instruction must be detailed

For helping students choose correct curriculum, curriculum instruction must be detailed. Curriculum instruction must contain following content: curriculum purpose, main content, teaching hours, pre-curriculum, following curriculum, etc. Curriculum purpose should cover what skills and knowledge student will gain after finishing this curriculum, these skills and knowledge must be confirmed that meet professional demand.

4.3. Direction and cohesion

Vocational college's curriculum modules need to be narrowed and carrier pointed, different modules must aim on each particular skill or capability, modularization work must base on scientific analysis and fact. Meanwhile, modules should be well linked to each other, well-linked modules can help teacher to passing knowledge to students smoothly.

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